

**THIS OPINION WAS NOT WRITTEN FOR PUBLICATION**

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte MICHAEL J. KUKLA  
HENRY J. BRESLIN, ALFONS H.M. RAEYMAEKERS,  
JOSEPHUS L.H. VAN GELDER,  
and PAUL A.J. JANSSEN

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Appeal No. 1997-1826  
Application 08/304,951

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ON BRIEF

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Before PAK, WARREN, and WALTZ, Administrative Patent Judges.  
WALTZ, Administrative Patent Judge.

**DECISION ON APPEAL**

This is an appeal under 35 U.S.C. § 134 from the  
examiner's final rejection of claims 14, 16-18, 20, 22, 24,  
26-28 and 33-34. Claims 19, 21, 23, 25, 29-31 and 35, the

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remaining claims in this application, were amended subsequent to the final rejection and have been allowed by the examiner (see the amendment dated Aug. 21, 1995, Paper No. 8; the Advisory Action dated Sept. 11, 1995, Paper No. 9; and the Brief, page 2).

According to appellants, the invention is directed to intermediates of a specified formula useful in the synthesis of certain tetrahydroimidazo[1,4]benzodiazepin-2-(thi)ones that have anti-retroviral properties (Brief, pages 2-3). Appellants state that the appealed claims stand or fall together (Brief, page 3). In accordance with this statement and the provisions of 37 CFR § 1.192(c)(7)(1995), we select claim 14 from the group of claims and decide this appeal as to the ground of rejection on the basis of this claim alone. A copy of illustrative claim 14 is reproduced and attached as an Appendix to this decision.

The examiner has relied upon the following reference as evidence of obviousness:

Carabateas

3,384,635

May 21, 1968

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The appealed claims stand rejected under 35 U.S.C. § 103 as unpatentable over Carabateas (Answer, page 2). We *affirm* this rejection for reasons which follow.

#### **OPINION**

The compounds specified in claim 14 on appeal contain an unsubstituted amino substituent at the 9-position (see formula II-H). The examiner finds that Carabateas discloses compounds which are generic to the compounds claimed by appellants (Answer, page 2, citing Carabateas, col. 1, l. 45+). Appellants do not contest this finding (Answer, page 3; Brief, page 5; Reply Brief, page 1). The examiner finds that Carabateas discloses several examples of specific compounds with an "amino-type group" on the benzene ring, such as an alkylamino substituent (Answer, page 2, citing Carabateas, col. 8, Table C, compounds 7J, 7K, and 7L). Appellants do not contest this finding regarding the alkylamino substituents (Brief, sentence bridging pages 5-6).

The examiner finds that loweralkylamino substituents are considered to be equivalent to primary amino substituents on the benzene ring by Carabateas (Answer, page 2, citing Carabateas, col. 1, ll. 63-65). In view of these findings,

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the examiner concludes that Carabateas as a whole fairly suggests the compounds recited in claim 14 on appeal for his disclosed utility as antagonists of analgesic agents (Answer, paragraph bridging pages 2-3, citing Carabateas, col. 2, ll. 1-3).

Appellants argue that Carabateas fails to disclose any specific compounds that have primary amino substituents anywhere on the benzene ring (Brief, pages 5-6). Furthermore, appellants argue that the alkylamino substituents disclosed by Carabateas are not in the 9-position (*id.*). Appellants submit that the Carabateas disclosure of "amino" along with eleven other substituents, taught for any of the 6, 7, 8, or 9-positions, does not teach or suggest appellants' specific selection of primary amino at the 9-position (*id.*). Finally, appellants argue that there is no motivation from Carabateas to insert a primary amino group at the 9-position unlike appellants' compounds which must have a primary amino group at the 9-position to be useful as an intermediate in the preparation of the TIBO compounds of Formula (I) (Brief, pages 7-9).

The examiner concedes that not every disclosure of a generic formula in a prior art reference that encompasses the claimed compounds is sufficient to render the claimed species compounds obvious, citing *In re Baird*<sup>1</sup> (Answer, page 4). However, as noted by the examiner on pages 2-4 of the Answer, Carabateas discloses the same basic ring structure as recited in claim 14 on appeal and the claimed compounds vary only by a single substituent on the benzene ring of this basic structure. Carabateas further teaches that various low molecular weight substituents such as halogen, lower-alkylamino and amino substituents are relatively equivalent for purposes of his invention, and exemplifies specific compounds where the 8-position is substituted by alkylamino and the 9-position is substituted by halogen (see Carabateas, col. 1, ll. 45-col. 2, ll. 1-3; Table C in col. 8, compounds 7J, 7K, 7L, 7M and 7N). Additionally, the reference specifically teaches how to prepare the unsubstituted amino substituent on the benzene ring (see Carabateas, col. 3, ll. 24-32). We agree with the examiner that the compounds recited in claim 14 on appeal would have been fairly suggested by the disclosure

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<sup>1</sup>16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994).

and teachings of Carabateas as a whole. See *In re Burckel*, 592 F.2d 1175, 1179, 201 USPQ 67, 70 (CCPA 1979)("[A] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.").

Appellants' argument that Carabateas fails to specifically disclose any compounds with primary amino substituents in any of the positions of the benzene ring is technically correct<sup>2</sup> but not persuasive (Brief, pages 5-6; Reply Brief, page 1). "Examples in a reference are merely that, exemplary of the broader disclosure, all of which is available for what it clearly teaches." *In re Widmer*, 353 F.2d 752, 757, 147 USPQ 518, 523 (CCPA 1965). See also *In re Lamberti*, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976)("The fact that neither of the references expressly discloses asymmetric dialkyl moieties is not controlling; the question under 35 USC 103 is not merely what the references expressly teach, but what they would have suggested to one of ordinary skill in the art at the time the invention was

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<sup>2</sup>Although no examples in Carabateas are directed to primary amino substituents, the reference specifically teaches the preparation of compounds with a primary amino substituent. See col. 3, ll. 24-32.

made." ). The reference, as a whole, clearly teaches unsubstituted amino substituents, the examples show equivalent substituents in the 9-position, and therefore 9-amino tetrahydro-1,4-benzodiazepines would have been well within the ordinary skill in the art at the time of appellants' invention.

Appellants' similar argument that Carabateas does not disclose any examples where there is amino substitution at the 9-position of the benzene ring is also not persuasive (Brief, pages 5-6). As discussed above, a reference must be considered as a whole, not just for the teachings of the examples. See *Widmer, supra*. Furthermore, Carabateas does disclose substituents at the 9-position of the benzene ring that are taught as equivalents to the amino group (e.g., halogen substituents, see col. 1, ll. 60-64, and Table C in col. 8, compounds 7M and 7N). Accordingly, 1,4-benzodiazepine derivatives with a 9-amino substituent would have been well within the ordinary skill in the art in view of the disclosure and teachings of Carabateas.

Appellants' argument that Carabateas does not teach or suggest appellants' utility and thus there is no motivation

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from the reference to insert a primary amino group at the 9-position of the benzene ring is not well taken (Brief, pages 7-9; Reply Brief, pages 1-2). As stated by our reviewing court in *In re Kemps*<sup>3</sup>

[a]llthough the motivation to combine here differs from that of the applicant, the motivation in the prior art to combine the references does not have to be identical to that of the applicant to establish obviousness. *In re Dillon*, 919 F.2d 688, 693, 16 U.S.P.Q.2D 1897, 1901 (Fed. Cir. 1990)(in banc).

Accordingly, although Carabateas does not disclose any motivation or suggestion to provide a primary amino substituent at the 9-position of the benzene ring in order for the compounds to be useful as intermediates in the preparation of appellants' TIBO compounds, Carabateas does provide a motivation or suggestion to one of ordinary skill in the *analgesic* art that 9-primary amino 1,4-benzodiazepine derivatives would have been useful as antagonists of analgesic agents. This is all that is required to establish a *prima facie* case of obviousness. *See Kemps, supra*.

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<sup>3</sup>97 F.3d 1427, 1430, 40 USPQ2d 1309, 1311 (Fed. Cir. 1996).



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For the foregoing reasons, we determine that the examiner has established a *prima facie* case of obviousness in view of the reference evidence. Based on the totality of the record, giving due consideration of appellants' arguments, we determine that the preponderance of evidence weighs in favor of obviousness. Accordingly, the examiner's rejection of the claims on appeal under 35 U.S.C. § 103 as unpatentable over Carabateas is affirmed.

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No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

**AFFIRMED**

	Chung K. Pak	)	
	Administrative Patent Judge	)	
		)	
		)	
		)	
	Charles F. Warren	)	BOARD OF
PATENT		)	
	Administrative Patent Judge	)	APPEALS AND
		)	INTERFERENCES
		)	
		)	
	Thomas A. Waltz	)	
	Administrative Patent Judge	)	

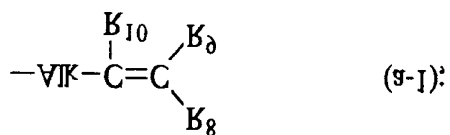
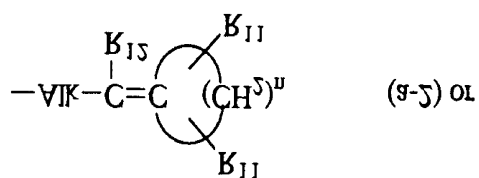
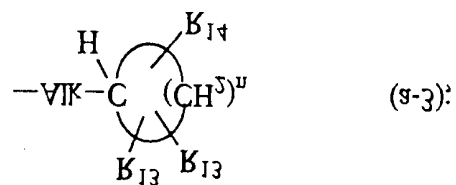
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# APPENDIX

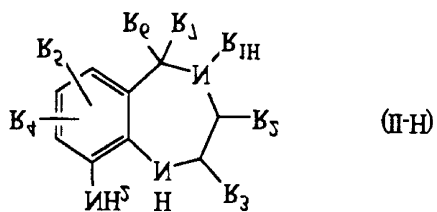
14. A compound having the formula:



C<sup>3</sup>-εαλσισηκλγ: ολ ε ισθιση ολ ιουμης :

B<sub>1H</sub> εε μλγιοθεν' C<sup>1</sup>-εσηκλγ οβπουσηλ εηρεμμερεδ μλμ ηελ: C<sup>3</sup>-εσηκλμλγ:

ση εελ εδδμμεν εηλ ολ ε ελεεεεεεεεεεεεε εεεεεε εεεεεε εεεεεε εεεεεε εεεεεε



πεινλγ

ζερερεφ εομ C<sup>I</sup>-εηκλγ' μηο' μλφιοχλ' C<sup>I</sup>-εηκλγιοχλ' απμνο' μμπο συφ πμμποιο-  
εεεμ ελγ ιε ερεμλγ οεμιοεηλγ επρεμμερεφ μμμ εομ γ ιο ε επρεμμερεε μρεεεεεεεεεε

K<sub>Δ</sub> ιε μλφιοεε οι πεμλγ: συφ

K<sub>Ε</sub> ιε μλφιοεε οι πεμλγ:

οι C<sup>I</sup>-εηκλγεερεμλγεμμνο:

μμμποιοεμλγ' μλφιοχλ' C<sup>I</sup>-εηκλγιοχλ' απμνο' μμμμ-οι εμ(C<sup>I</sup>-εηκλγ)εμμνο

K<sub>Φ</sub> συφ K<sub>Ζ</sub> εεεμ μρεεεεεεεεεε ειε μλφιοεε' C<sup>I</sup>-εηκλγ' μηο' ελμνο' μμπο'

K<sub>Ζ</sub> ιε μλφιοεε οι C<sup>I</sup>-εηκλγ:

K<sub>Σ</sub> ιε μλφιοεε οι πεμλγ:

K<sub>ΙΦ</sub> ιε μλφιοεε οι C<sup>Σ</sup>-εηκεελγ:

μμελ εομ ε C<sup>I</sup>-εηκεεεεεεεε εεεεεε:

εεεμ K<sub>ΙΖ</sub> μρεεεεεεεεεε ιε μλφιοεε οι C<sup>I</sup>-εηκλγ: οι εομ K<sub>ΙΖ</sub> ιεκε ιοεεεεε  
μ ιε ε' ε' ε' ε' ε' οι ε:

K<sub>ΙΣ</sub> ιε μλφιοεε' μηο οι C<sup>I</sup>-εηκλγ:

μμελ εομ ε C<sup>I</sup>-εηκεεεεεεεε εεεεεε:

εεεμ K<sub>ΙΙ</sub> μρεεεεεεεεεε ιε μλφιοεε οι C<sup>I</sup>-εηκλγ: οι εομ K<sub>ΙΙ</sub> ιεκε ιοεεεεε

K<sub>ΙΟ</sub> ιε μλφιοεε' μηο οι C<sup>I</sup>-εηκλγ:

πεινλγ' ε'ε'ε-μμμποιοεμλγ' C<sup>I</sup>-εηκλγ οεμιοεηλγ επρεμμερεφ μμμ C<sup>I</sup>-εηκλγιοχλ:

K<sub>8</sub> συφ K<sub>8</sub> εεεμ μρεεεεεεεεεε ειε μλφιοεε' μηο' C<sup>Σ</sup>-εεεεεεεεεεεε μμμποιο-

εηκ ιε C<sup>I</sup>-εηκεεεεεεεε: